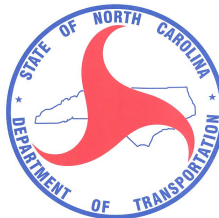


ANNUAL REPORT FOR 2011



**Sunset Beach Bridge Temporary Impact Site
Brunswick County
TIP No. B-0682**



Prepared By:
Natural Environment Unit & Roadside Environmental Unit
North Carolina Department of Transportation
July 2011

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SUMMARY

The Sunset Beach Bridge Temporary Impacts Site is located in Brunswick County. This is an annual report for temporary impacts associated with the bridge replacement of Bridge No. 198 over the Intercoastal Waterway. The site was completed in May 2011.

The temporary impacts encompass approximately 0.589 acres. The area that was impacted is being monitored to ensure that it re-attains wetland jurisdictional status. Hydrologic monitoring is not required for this site; however, vegetation monitoring is required for three years.

Impacts from erosion control devices account for 0.410 acres of the total impacts. Based on inspection and approval by the USACE and DCM after removal of the erosion control devices, these impacts may be called temporary. If approved the 0.410 acres would then be added back into the wetland assets onsite.

After the first year of monitoring, the Sunset Beach Bridge Temporary Impacts Site shows by visual observation that the temporarily impacted area is re-attaining wetland jurisdictional status.

NCDOT proposes to continue vegetation monitoring at the Sunset Beach Bridge Temporary Impact Site in 2012.

1.0 INTRODUCTION

1.1 Project Description

The Sunset Beach Bridge Temporary Impacts Site is located in Brunswick County at Bridge No. 198 over the Intercoastal Waterway and approaches on SR 1172 at Sunset Beach (Figure 1). The temporary impacts encompass approximately 0.589 acres. The area that was impacted is being monitored to ensure that it re-attains wetland jurisdictional status. Hydrologic monitoring is not required for this site; however, vegetation monitoring is required for three years.

Impacts from erosion control devices account for 0.410 acres of the total impacts. Based on inspection and approval by USACE and DCM after removal of the erosion control devices, these impacts may be called temporary. If approved the 0.410 acres would then be added back into the wetland assets onsite.

1.2 Purpose

In order for a mitigation site to be considered successful, a site must meet vegetation success criteria. This report details the vegetation monitoring in 2011 at the Sunset Beach Bridge Temporary Impacts Site. Hydrologic monitoring was not required for the site.

1.3 Project History

May 2011	Marsh Grass Planting
July 2011	Vegetation Monitoring (Year 1)

1.4 Debit Ledger

The restoration of the Sunset Beach Temporary Impacts Site was used entirely to compensate for temporary wetland impacts on the B-0682 project.

2.0 VEGETATION: SUNSET BEACH BRIDGE TEMPORARY IMPACTS SITE (YEAR 1 MONITORING)

2.1 Success Criteria

CAMA Condition #44 (Temporary Impacts)

Due to the possibility that compaction, mechanized clearing and/or other site alterations might prevent the temporary wetland impact area from re-attaining pre-project wetland functions, the permittee shall monitor temporary wetland impacts for three years after project completion. The permittee shall schedule a meeting with NCDWM and NCDWQ to verify the extent and location of temporary impacts upon project completion. The permittee shall then provide an annual update for 3 years on any wetland areas temporarily impacted by this project. This annual update shall consist of photographs and written report on the progress of these temporarily impacted areas in re-attaining wetland jurisdictional status. Three years after project completion, the permittee shall schedule an agency field meeting with NCDWM and NCDWQ to determine if the wetland areas temporarily impacted by this project have re-attained pre-project wetland functions. If at the end of 3 years the wetland areas temporarily impacted by this project have not re-attained pre-project wetland functions, NCDWM and NCDWQ shall determine whether compensatory wetland mitigation shall be required.

2.2 Description of Species

The following wetland species were planted in the temporary impact areas:

Spartina alterniflora, Smooth Cordgrass

2.3 Results of Vegetation Monitoring

The impacted area where the temporary impacts occurred is re-attaining wetland jurisdictional status and the smooth cordgrass plants are surviving. The temporary impact areas were planted in May 2011. The temporary work bridge area was only planted in small sections due to the unstable soil conditions at the time of planting. The temporary work bridge area had fewer planted smooth cordgrass but it is expected that this area will re-vegetate naturally.

The impacted area where erosion control devices were installed is re-attaining wetland jurisdictional status and the smooth cordgrass is re-vegetating.

2.4 Conclusions

There were approximately 0.589 acres of temporary impacts and 0.410 acres of impacts from erosion control devices. There were no plots established on the site. By visual

observation, the Sunset Beach Bridge Temporary Impacts Site shows that the planted species are surviving and the impacted areas are re-attaining wetland jurisdictional status.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to continue vegetation monitoring at the Sunset Beach Bridge Temporary Impact Site in 2012.



Figure 1. Site Location Map

APPENDIX A

SITE PHOTOS

Sunset Beach Bridge Temporary Impact Site



Photo 1 (Temp. Detour)



Photo 2 (Temp. Detour)



Photo 3 (Temp. Detour)



Photo 4 (Temp. Detour)



Photo 5 (Temp. Detour)



Photo 6 (Temp. Detour)

July 2011

Sunset Beach Temporary Impact Photos



Photo 7 (Temp. Work Bridge)



Photo 8 (Temp. Work Bridge)



Photo 9 (Temp. Work Bridge)



Photo 10 (EC Device Impact)



Photo 11 (EC Device Impact)



Photo 12 (EC Device Impact)

July 2011

Sunset Beach Temporary Impact Photos



Photo 13 (EC Device Impact)



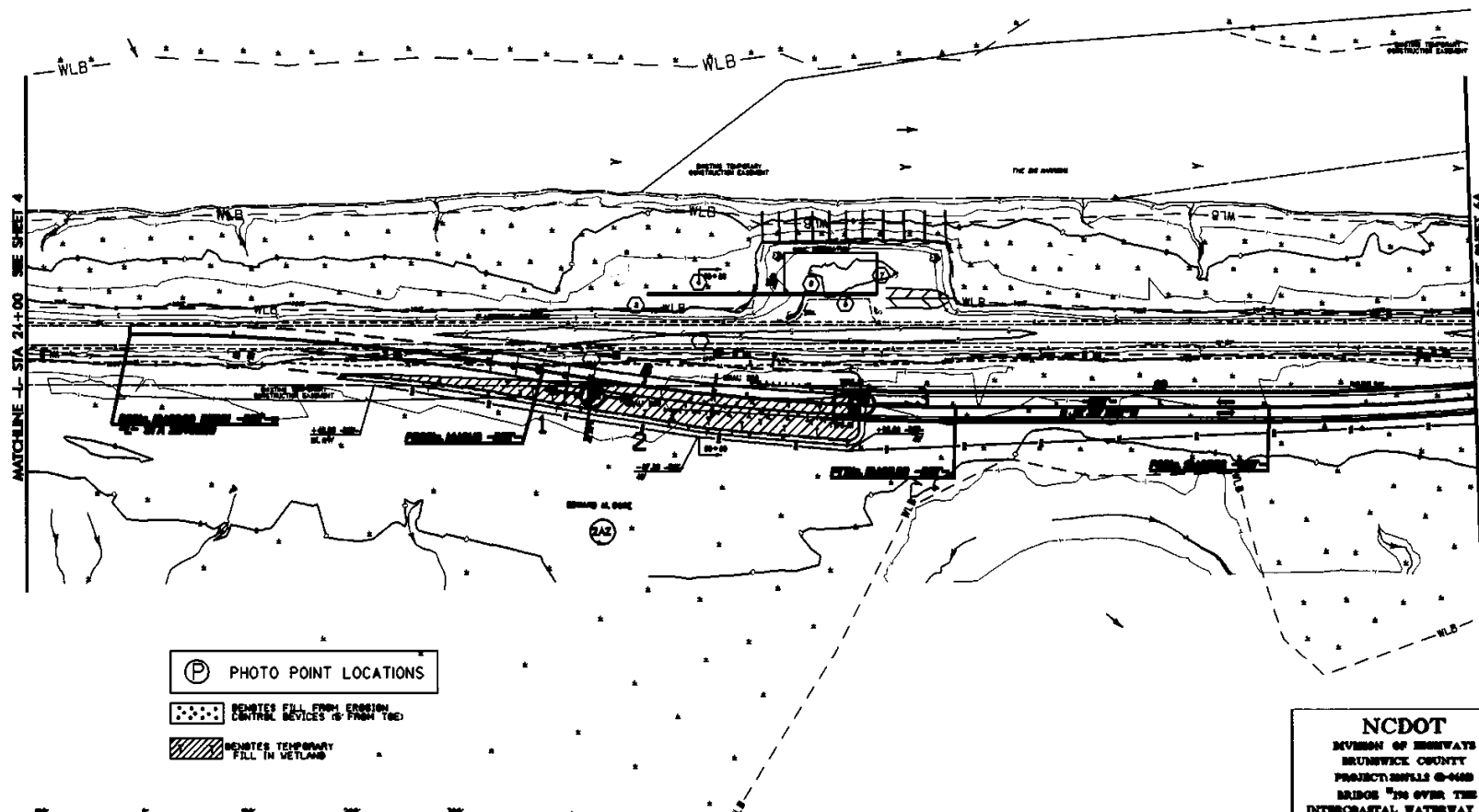
Photo 14 (EC Device Impact)



Photo 15 (EC Device Impact)

July 2011

PROJECT NO.	DATE
H-1000	5A
BY	DATE
BY	DATE
BY	DATE
BY	DATE
INCOMPLETE PLANS DO NOT USE FOR J/T APPROVAL PRELIMINARY PLANS DO NOT USE FOR SUBMITTAL	



(P) PHOTO POINT LOCATIONS

BENTIES FILL FROM EROSION
CENTRAL DEVICES 15' FROM TOE

BENTIES TEMPORARY
FILL IN WETLAND



NCDOT
 DIVISION OF HIGHWAYS
 BRUNSWICK COUNTY
 PROJECT NO. 0-440
 BRIDGE 715 OVER THE
 INTERCOASTAL WATERWAY AND
 APPROACHES ON BRIST
 AT SUNSET BEACH
 SHEET 5A

PROJECT NUMBER NO. 8-002		SHEET NO. 6A	
SHEET TITLE		SHEET TITLE	
DESIGNED BY		CHECKED BY	
DRAWN BY		APPROVED BY	
<p>INCOMPLETE PLANS PRELIMINARY PLANS</p>			

-L-		-OET-	
PT Sta 40+00.0	PT Sta 23+00.0	PT Sta 27+00.0	
Δ = 14.87 3.7 (LT)	Δ = 9.50 4.1 (LT)	Δ = 10.06 0.8 (RT)	
D = 2.30 0.0	D = 2.30 0.8	D = 2.30 0.0	
L = 30.19	L = 30.19	L = 40.4	
T = 20.0	T = 19.42	T = 30.22	
R = 229.83	R = 229.83	R = 229.83	
SE = 03	SE = 02	SE = 02	



Ⓟ PHOTO POINT LOCATIONS

▨ DENOTES TEMPORARY FILL IN WETLAND

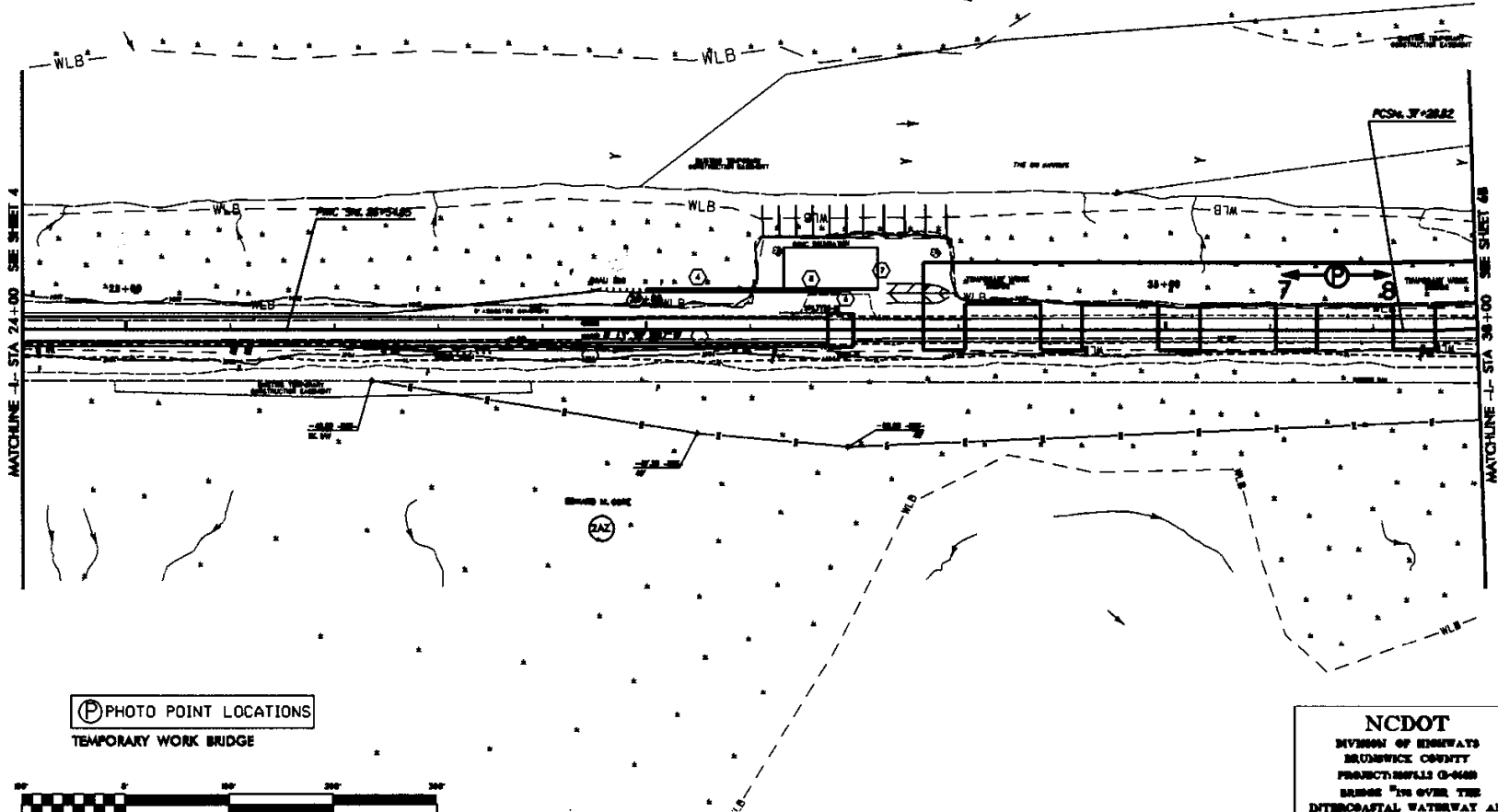
⬢ DENOTES FILL FROM EROSION CONTROL DEVICES (5' FROM TOE)



NOTICE
 ENGINEERING COMPANY
 DESIGNED BY NCEC ENGINEERING COMPANY
 UNDER THE SUPERVISION OF THE
 INTERSTATE WATERWAY AND
 APPROVED BY NCEC
 AT SUNSET BEACH

PROJECT NO.	8-140
DATE	5/84
BY	CHS
CHECKED	
APPROVED	
INCOMPLETE PLANS	PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION	DO NOT USE FOR CONSTRUCTION

PC 34+00.00
 Δ = 14.00 32.437
 O = 2.37 0.00
 L = 300.00
 T = 39.00
 E = 23.33
 R = 0.00



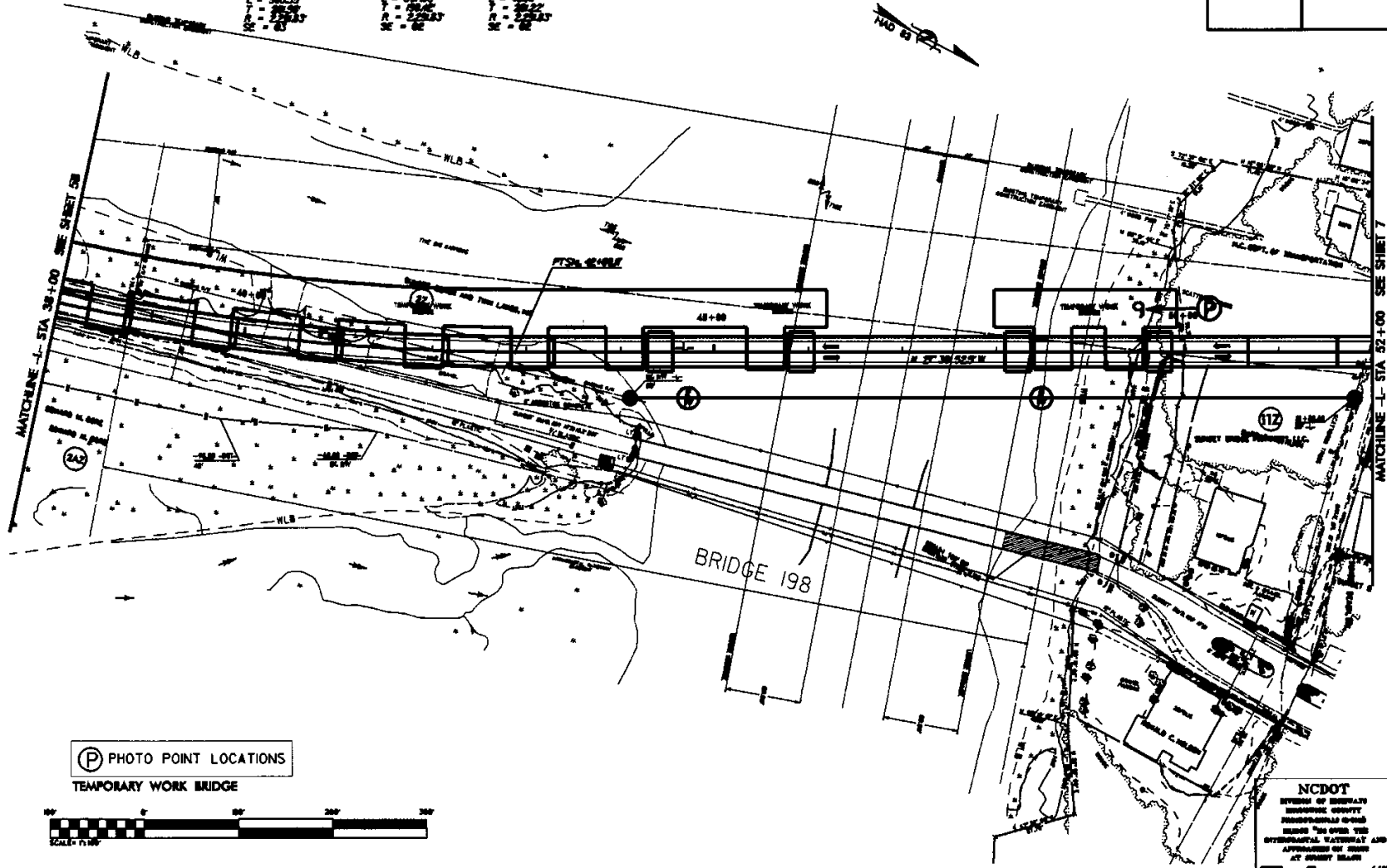
(P) PHOTO POINT LOCATIONS
 TEMPORARY WORK BRIDGE



NCDOT
 DIVISION OF HIGHWAYS
 BRUNSWICK COUNTY
 PROJECT: RFP 0-0400
 BRIDGE 718 OVER THE
 INTERCOASTAL WATERWAY AND
 APPROACHES ON BRIDGE
 AT SUNSET BEACH
 SHEET 02 4/84

PROJECT NUMBER: 10-100		DATE: 10-10-10
BY: [Signature]		SCALE: 1"=100'
REVISION: 1		REVISION: 1
INCOMPLETE PLANS FOR THE USE OF THE PUBLIC PRELIMINARY PLANS FOR THE USE OF THE PUBLIC		

STATION	PC	PT	PI	STATION	PC	PT	PI
10+00	10+00	10+00	10+00	20+00	20+00	20+00	20+00
10+00	10+00	10+00	10+00	20+00	20+00	20+00	20+00
10+00	10+00	10+00	10+00	20+00	20+00	20+00	20+00
10+00	10+00	10+00	10+00	20+00	20+00	20+00	20+00
10+00	10+00	10+00	10+00	20+00	20+00	20+00	20+00
10+00	10+00	10+00	10+00	20+00	20+00	20+00	20+00
10+00	10+00	10+00	10+00	20+00	20+00	20+00	20+00
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10+00	10+00	10+00	10+00	20+00	20+00	20+00	20+00
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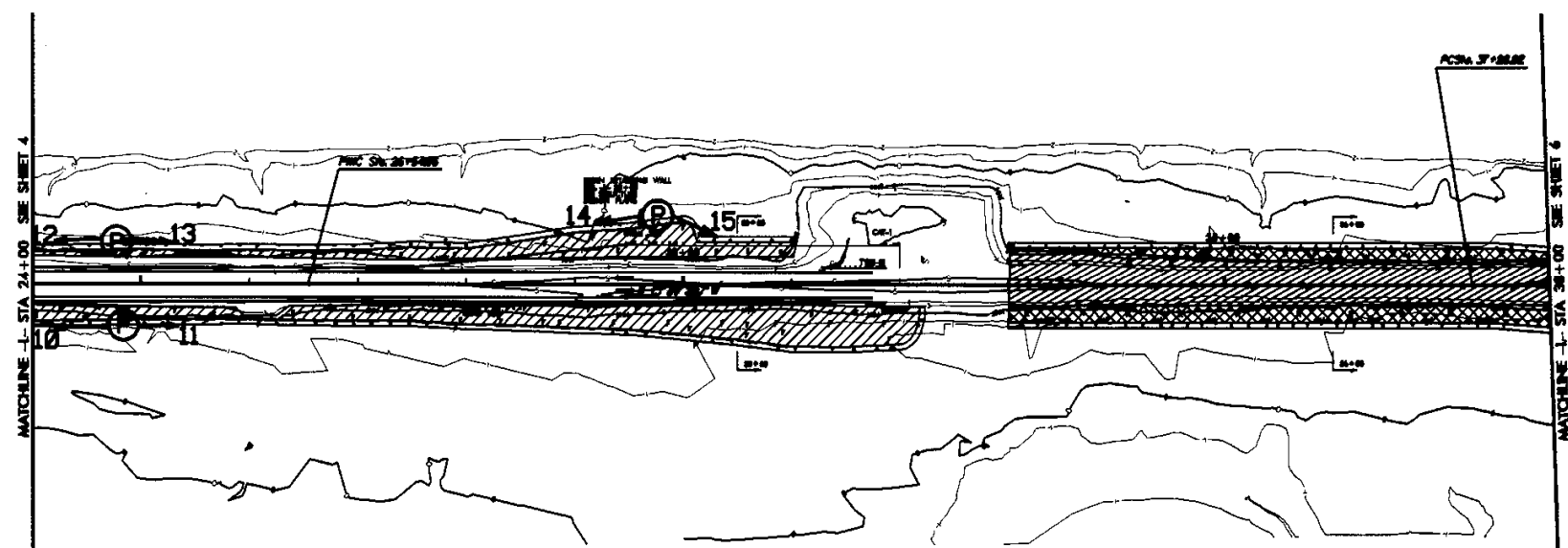
P PHOTO POINT LOCATIONS
 TEMPORARY WORK BRIDGE







NCDOT
 DIVISION OF HIGHWAYS
 TRANSPORTATION
 BRIDGE 198 OVER THE
 OVERHEAD CATHART AND
 APPROACHES TO BE
 AT STATION 100

DATE	12/1/83
BY	J. L. JONES
PROJECT	BRIDGE #10 OVER THE
NO.	INTRACASTAL WATERWAY AND
NAME	APPROACHES ON SR1172
SECTION	AT SUNSET BEACH
INCOMPLETE PLANS	
PRELIMINARY PLANS	
30 MAY 1984	

1-1
 PCH 2+00.00
 A = 100' 37" (L7)
 B = 2' 10" 000
 C = 2' 10" 000
 D = 2' 10" 000
 E = 2' 10" 000
 F = 2' 10" 000
 G = 2' 10" 000
 H = 2' 10" 000
 I = 2' 10" 000
 J = 2' 10" 000
 K = 2' 10" 000
 L = 2' 10" 000
 M = 2' 10" 000
 N = 2' 10" 000
 O = 2' 10" 000
 P = 2' 10" 000
 Q = 2' 10" 000
 R = 2' 10" 000
 S = 2' 10" 000
 T = 2' 10" 000
 U = 2' 10" 000
 V = 2' 10" 000
 W = 2' 10" 000
 X = 2' 10" 000
 Y = 2' 10" 000
 Z = 2' 10" 000



(P) PHOTO POINT LOCATIONS

-  REMOTES EXCAVATION/RESTORED WETLANDS
-  REMOTES FILL IN WETLAND
-  REMOTES FILL FROM EROSION CONTROL DEVICES (IF FROM TBE)
-  REMOTES RESTORED WETLANDS



NCDOT
 DIVISION OF HIGHWAYS
 BRUNSWICK COUNTY
 PROJECT NO. 8-0400
 BRIDGE #10 OVER THE
 INTRACASTAL WATERWAY AND
 APPROACHES ON SR1172
 AT SUNSET BEACH